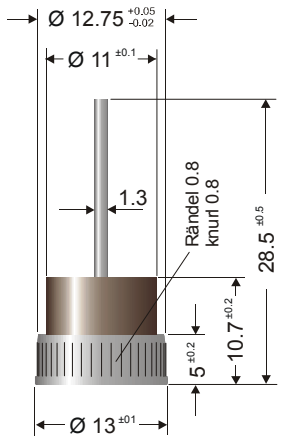
查询BYZ50A22供应商



Diotec Semiconductor

**Silicon Protectifiers with TVS characteristics**
**High-temperature diodes**

**Silizium Schutzgleichrichter mit Begrenzereigenschaften**
**Hochtemperaturdioden**



Dimensions / Maße in mm

Nominal current – Nennstrom 50 A

Nominal breakdown voltage 19.8 ... 51.7 V
Nominale Abbruch-Spannung

Metal press-fit case with plastic cover
Metall-Einpreßgehäuse mit Plastik-Abdeckung

Weight approx. – Gewicht ca. 10 g

Casting compound has UL classification 94V-0
Vergußmasse UL94V-0 klassifiziert

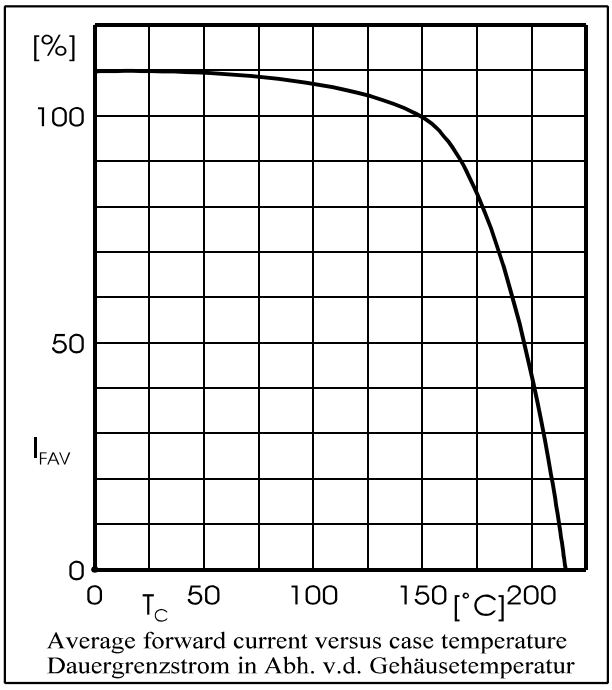
Standard packaging: bulk
Standard Lieferform: lose im Karton

**Maximum ratings** **Grenzwerte**

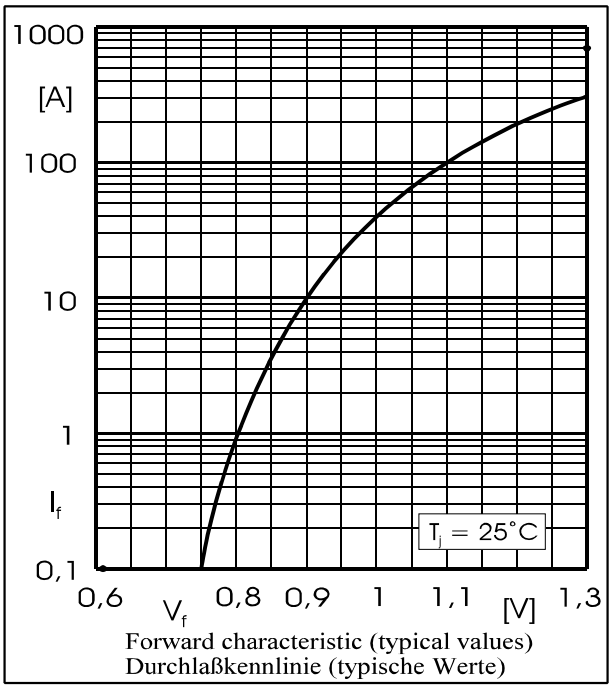
| Type / Typ<br>Wire to / Draht an | | Breakdown voltage<br>Abbruch-Spannung<br>$I_T$ = 100 mA | | Reverse voltage<br>Sperrspannung<br>$I_R$ = 5 µA | Max. clamping voltage<br>Max. Begrenzerspanng.<br>at / bei $I_{PP}$, $t_p$ = 1m s | |
|---|---|---|---|---|---|---|
| Anode | Cathode | $V_{BRmin}$ [V] | $V_{BRmax}$ | $V_R$ [V] | $V_C$ [V] | $I_{PP}$ [A] |
| BYZ 50A22 | BYZ 50K22 | 19.8 | 24.2 | > 17.8 | 31,9 | 242 |
| BYZ 50A27 | BYZ 50K27 | 24.3 | 29.7 | > 21.8 | 39,1 | 192 |
| BYZ 50A33 | BYZ 50K33 | 29.7 | 36.3 | > 26.8 | 47,7 | 160 |
| BYZ 50A39 | BYZ 50K39 | 35.1 | 42.9 | > 31.6 | 56,4 | 134 |
| BYZ 50A47 | BYZ 50K47 | 42.3 | 51.7 | > 38.1 | 67,8 | 112 |

| | | | | |
|---|---|---|---|---|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last | | $T_C$ = 150˚C | $I_{FAV}$ | 50 A |
| Peak forward surge current, 50 / 60 Hz half sine-wave<br>Stoßstrom für eine 50 / 60 Hz Sinus-Halbwelle | | $T_A$ = 25˚C | $I_{FSM}$ | 400 / 450 A |
| Rating for fusing – Grenzlastintegral, t <10 ms | | $T_A$ = 25˚C | $i^2t$ | 800 $A^2s$ |
| Forward voltage – Durchlaßspannung | $T_j$ = 25˚C | $I_F$ = 50 A | $V_F$ | < 1.1 V |
| Operating junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur | | | $T_j$<br>$T_S$ | – 50…+215˚C<br>– 50…+215˚C |

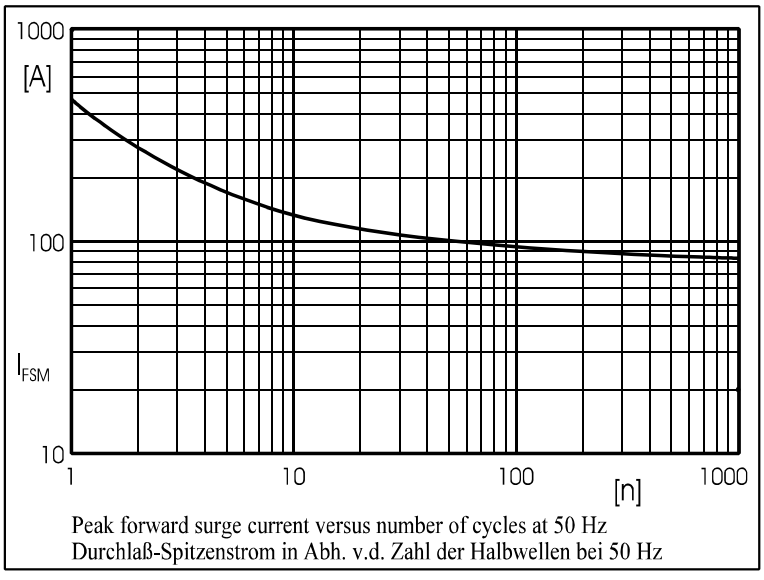
| | | |
|---|---|---|
| Max. junction temperature in case of “Load Dump”<br>Max. Sperrschichttemperatur bei “Load Dump” | $T_{jmax}$ | +280˚C |
| Thermal resistance junction to case<br>Wärmewiderstand Sperrschicht – Gehäuse | $R_{thC}$ | < 0.6 K/W |
| Maximum pressure – Maximaler Einpreßdruck | | 7 kN |



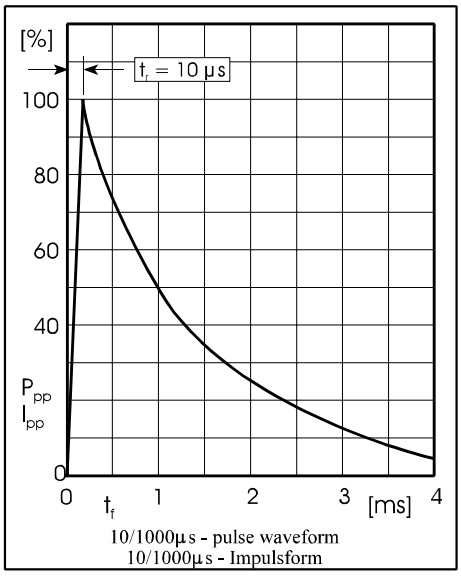
Average forward current versus case temperature
Dauergrenzstrom in Abh. v.d. Gehäusetemperatur



Forward characteristic (typical values)
Durchlaßkennlinie (typische Werte)



Peak forward surge current versus number of cycles at 50 Hz
Durchlaß-Spitzenstrom in Abh. v.d. Zahl der Halbwellen bei 50 Hz



10/1000µs - pulse waveform
10/1000µs - Impulsform